

IN THE CLAIMS

This listing of claims will replace all prior versions.

Listing of Claims:

Claims 1-3 (Canceled):

Claim 4 (Withdrawn): A semiconductor device, comprising:

a portion to be measured by fluctuation in potential;

a wire having one end and the other end connected with said portion to be measured;

and

an observation part connected with said one end of said wire,

wherein said observation part includes a pn junction irradiated with a laser beam to detect said fluctuation in potential, said pn junction includes a first impurity region of a first conductivity type connected with said one end of said wire and a second impurity region of a second conductivity type, said first impurity region is formed within said second impurity region, said observation part includes a first MOS transistor having said first impurity region as a source/drain region, and said first MOS transistor includes a gate electrode set to be the same in potential as said second impurity region.

Claim 5 (Canceled)

Claim 6 (Currently Amended): A semiconductor device, comprising:

a) a second MOS transistor, including a portion measured by fluctuation in potential;

b) a wire having a first end and a second end, the second end being connected with said portion measured; and

c) an observation part including a pn junction irradiated with a laser beam to detect said fluctuation in potential, wherein:

1) said observation part includes a first MOS transistor including:

i) a source/drain region including a first impurity region of a first conductivity type, that is connected with said first end of said wire and that is formed within a second impurity region of a second conductivity type; and

ii) a gate electrode that is electrically insulated from a gate electrode of said second MOS transistor;

2) said pn junction includes said first and second impurity regions; and

~~The semiconductor device according to claim 1, wherein:~~

3) said portion measured is said gate electrode of said second MOS transistor.

Claim 7 (Canceled):

Claim 8 (Withdrawn): The semiconductor device according to claim 1, wherein said portion to be measured is a well region of said second MOS transistor.

Claim 9 (Canceled)

Claim 10 (Withdrawn) A semiconductor device, comprising:

a portion to be measured by fluctuation in potential;

a wire having one end and the other end connected with said portion to be measured;

an observation part connected with said one end of said wire, and

a wire to be measured including said portion to be measured;

wherein said observation part includes a pn junction irradiated with a laser beam to detect said fluctuation in potential, said pn junction including a first impurity region of a first conductivity type connected with said one end of said wire and a second impurity region of a second conductivity type, and

said observation part further includes a third impurity region connected with a second portion to be measured different from said portion to be measured and made conductive with said wire to be measured, and a fourth impurity region having a conductivity type opposite to a conductivity type of said third impurity region.

Claim 11 (Currently Amended): A semiconductor device, comprising:

- a) a second MOS transistor, including a portion measured by fluctuation in potential;
- b) a wire having a first end and a second end, the second end being connected with said portion measured; and
- c) an observation part including a pn junction irradiated with a laser beam to detect said fluctuation in potential, wherein:

1) said observation part includes a first MOS transistor including:

i) a source/drain region including a first impurity region of a first conductivity type, that is connected with said first end of said wire and that is formed within a second impurity region of a second conductivity type; and

ii) a gate electrode that is electrically insulated from a gate electrode of said second MOS transistor;

2) said pn junction includes said first and second impurity regions;

~~The semiconductor device according to claim 1, wherein:~~

[[a)]] 3) said first conductivity type is an n type and said second conductivity type is a p type;

[[b)]] 4) said observation part further includes:

[[1)]] i) a second pn junction having a p-type third impurity region connected with said wire and an n-type fourth impurity region; and

[[c)]] 5) a first fixed potential is applied to said second impurity region and a second fixed potential higher than said first fixed potential is applied to said fourth impurity region.

Claim 12 (Withdrawn): A method of analyzing the semiconductor device recited in claim 1, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

Claims 13 and 14 (Canceled)

Claim 15 (Withdrawn): A method of analyzing a semiconductor device including:

a portion to be measured by fluctuation in potential;

a wire having one end and the other end connected with said portion to be measured;

and

an observation part connected with said one end of said wire,

wherein said observation part includes a pn junction irradiated with a laser beam to detect said fluctuation in potential, said pn junction includes a first impurity region of a first conductivity type connected with said one end of said wire and a second impurity region of a second conductivity type, said first impurity region is formed within said second impurity region, said observation part includes a first MOS transistor having said first impurity region as a source/drain region, and said first MOS transistor includes a gate electrode set to be the same in potential as said second impurity region,

comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

Claim 16 (Canceled)

Claim 17 (Withdrawn) A method of analyzing the semiconductor device recited in claim 6, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

Claim 18 (Withdrawn) A method of analyzing the semiconductor device recited in claim 7, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

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(b) measuring light intensity of said laser beam reflected at said pn junction.

Claim 19 (Withdrawn) A method of analyzing the semiconductor device recited in claim 8, comprising the steps of:

(a) irradiating said pn junction with a laser beam; and

(b) measuring light intensity of said laser beam reflected at said pn junction.

Claim 20 (Canceled):